

CASE 1959: Application of SINCLAIR  
for approval of automatic custody  
transfer system - M. Yates "B" Lease.

Casa No.

1959

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Application, Transcript,

Small Exhibits, Etc.

BEFORE THE OIL CONSERVATION COMMISSION  
OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING  
CALLED BY THE OIL CONSERVATION  
COMMISSION OF NEW MEXICO FOR  
THE PURPOSE OF CONSIDERING:

CASE No. 1959  
Order No. R-1677

APPLICATION OF SINCLAIR OIL & GAS  
COMPANY FOR APPROVAL OF AN AUTOMATIC  
CUSTODY TRANSFER SYSTEM IN THE  
EMPIRE-ABO POOL, EDDY COUNTY, NEW  
MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on May 11, 1960, at Santa Fe, New Mexico, before Daniel S. Nutter, Examiner duly appointed by the Oil Conservation Commission of New Mexico, hereinafter referred to as the "Commission," in accordance with Rule 1214 of the Commission Rules and Regulations.

NOW, on this 19th day of May, 1960, the Commission, a quorum being present, having considered the application, the evidence adduced, and the recommendations of the Examiner, Daniel S. Nutter, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Sinclair Oil & Gas Company, is the owner and operator of the M. Yates "B" (ARC) lease consisting of the S/2, NE/4, S/2 NW/4, and the NE/4 NW/4 of Section 33, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico.
- (3) That the applicant proposes to install an automatic custody transfer system to handle the Empire-Abo Pool production from all wells presently completed or hereafter drilled on the said M. Yates "B" (ARC) lease.
- (4) That the previous use of automatic custody transfer equipment, similar to that proposed by the applicant, has shown that such equipment is a reliable and economic means of transferring the custody of oil, and that the use of such equipment should be permitted, provided adequate safety features are incorporated therein.

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CASE No. 1959  
Order No. R-1677

IT IS THEREFORE ORDERED:

That the applicant, Sinclair Oil & Gas Company, be and the same is hereby authorized to install automatic custody transfer equipment to handle the Empire-Abo Pool production from all wells presently completed or hereafter drilled on its M. Yates "B" (ARC) lease consisting of the S/2, NE/4, S/2 NW/4, and NE/4 NW/4 of Section 33, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico.

PROVIDED HOWEVER, That inasmuch as the lease shut-in facilities will be at the lease header rather than at the wellheads, the flowlines used in the automatic custody transfer system shall be plastic-coated pressure-tested tubing.

PROVIDED FURTHER, That the applicant shall install adequate facilities to permit the testing of all wells on the said M. Yates "B" (ARC) lease at least once each month to determine the individual production from each well.

IT IS FURTHER ORDERED:

That all meters used in the above-described automatic custody transfer system shall be operated and maintained in such a manner as to ensure an accurate measurement of the liquid hydrocarbon production at all times.

That meters shall be checked for accuracy at least once each month until further direction by the Secretary-Director.

That meters shall be calibrated against a master meter or against a test tank of measured volume and the results of such calibration filed with the Commission on the Commission form entitled "Meter Test Report."

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO  
OIL CONSERVATION COMMISSION

*John Burroughs*  
JOHN BURROUGHS, Chairman

*Murray E. Morgan*  
MURRAY E. MORGAN, Member

*A. L. Porter, Jr.*  
A. L. PORTER, Jr., Member & Secretary



OIL CONSERVATION COMMISSION  
SANTA FE, NEW MEXICO

Date 5/13/60

CASE 1959

Hearing Date 5/11/60 9am  
DSN @ SF

My recommendations for an order in the above numbered cases are as follows:

Enter an order authorizing Sinclair  
to install an LACT system as  
requested in this case.

Specify that applicant shall  
use plastic coated pressure-tested  
tubing for flow lines on the  
wells inasmuch as lease  
shut-in facilities will be  
at the header rather than  
at the well heads.

  
Staff Member

DOCKET: EXAMINER HEARING MAY 11, 1960

Oil Conservation Commission - 9 a.m., Mabry Hall, State Capitol, Santa Fe.

The following cases will be heard before Daniel S. Nutter, Examiner, or Oliver E. Payne, Attorney, as alternate examiner:

CASE 1958: Application of Texaco Inc., for approval of an automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing the installation of an automatic custody transfer system to handle the production from the Echol-Devonian Pool from all wells on its State "AR" Lease, consisting of the N/2 SW/4 and Lots 3 and 4 of Section 2, Township 11 South, Range 37 East, Lea County, New Mexico.

CASE 1959: Application of Sinclair Oil & Gas Company for approval of an automatic custody transfer system. Applicant, in the above-styled cause, seeks an order authorizing the installation of an automatic custody transfer system to handle the production from the Empire-Abo Pool from all wells presently completed or hereafter drilled on its M. Yates "B" Lease, consisting of the S/2, NE/4, S/2 NW/4, and NE/4 NW/4 of Section 33, Township 17 South, Range 28 East, Eddy County, New Mexico.

CASE 1960: Application of Gulf Oil Corporation for approval of a unit agreement. Applicant, in the above-styled cause, seeks approval of its North Caverns Unit Agreement, which unit will embrace approximately 6,303 acres of Federal and State land in Townships 22 and 23 South, Range 24 East, Eddy County, New Mexico.

CASE 1961: Application of Gulf Oil Corporation for permission to commingle the production from four separate pools and for approval of an automatic custody transfer system to handle said commingled production. Applicant, in the above-styled cause, seeks permission to commingle the production from the Blinebry, Drinkard, Paddock, and Penrose-Skelly Pools from all wells located on its C. L. Hardy lease comprising the SW/4 of Section 20, Township 21 South, Range 37 East, Lea County, New Mexico, after separately metering only the production from the Blinebry Pool and to allocate the Drinkard Paddock and Penrose-Skelly Pool production without prior metering or measurement but on the basis of monthly individual well tests. Applicant further seeks approval of an automatic custody transfer system to handle the said commingled production from all wells on the said C. L. Hardy lease.

- CASE 1962: Application of McGrath and Smith for a special allowable for one well in the Caprock-Queen Pool, Lea and Chaves Counties, New Mexico. Applicant, in the above-styled cause, seeks a special allowable for one well offsetting a capacity water-flood project in the Caprock-Queen Pool, Lea and Chaves Counties, New Mexico. Said well is the Tidewater-State Well No. 1, located in the NW/4 SE/4 of Section 18, Township 13 South, Range 32 East, Lea County, New Mexico.
- CASE 1963: Application of Aztec Oil & Gas Company for an unorthodox gas well location and for approval of two non-standard units. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location in the Blanco-Mesaverde Gas Pool for its Richardson Well No. 6, to be located in the SE/4 of Section 22, Township 31 North, Range 12 West, San Juan County, New Mexico. Applicant further seeks establishment of a 297-acre non-standard gas proration unit in the Blanco-Mesaverde Gas Pool and a 297-acre non-standard unit in the Dakota Producing Interval, each consisting of the E/2 of said Section 22 and to be dedicated to the said Richardson Well No. 6.
- CASE 1964: Application of Aztec Oil & Gas Company for an unorthodox gas well location and for approval of two non-standard units. Applicant, in the above-styled cause, seeks approval of an unorthodox gas well location in the Blanco-Mesaverde Gas Pool for its Richardson Well No. 7, to be located in the SE/4 of Section 15, Township 31 North, Range 12 West, San Juan County, New Mexico. Applicant further seeks establishment of a 309.55-acre non-standard gas proration unit in the Blanco-Mesaverde Gas Pool and a 309.55-acre non-standard unit in the Dakota Producing Interval, each consisting of the E/2 of said Section 15, and to be dedicated to said Richardson Well No. 7.
- CASE 1965: Application of Aztec Oil & Gas Company for approval of an unorthodox gas well location. Applicant, in the above-styled cause, seeks approval of an unorthodox location in the Blanco-Mesaverde Gas Pool for its Thompson Well No. 6, to be located in the SE/4 of Section 28, Township 31 North, Range 12 West, San Juan County, New Mexico.
- CASE 1966: Application of Texas National Petroleum Company for an oil-gas dual completion utilizing parallel strings of casing cemented in a common well bore and for an unorthodox gas well location. Applicant, in the above-styled cause, seeks an order authorizing the dual completion of a well to be located at an unorthodox location 660 feet from the North and West

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Docket No. 13-60

CASE 1966:  
(Cont.)

lines of Section 1, Township 25 North, Range 9 West, San Juan County, New Mexico, in such a manner as to permit the production of oil from the Gallup formation and the production of gas from the Dakota Producing Interval through 2 7/8-inch casing and through 2-inch tubing set in 4 1/2-inch casing respectively with the casing being cemented in a common well bore.

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BEFORE THE OIL CONSERVATION COMMISSION OF THE  
STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION  
OF SINCLAIR OIL & GAS COMPANY FOR  
PERMISSION TO INSTALL AN AUTOMATIC  
CUSTODY TRANSFER SYSTEM ON ITS  
M. YATES "B" (ARC) LEASE IN THE  
EMPIRE ABO POOL, EDDY COUNTY,  
NEW MEXICO.

CASE NO. 1959

ORDER NO. \_\_\_\_\_

A P P L I C A T I O N

SINCLAIR OIL & GAS COMPANY, a Maine corporation with an operating office in Midland, Texas, hereby makes application for permission to install an automatic custody transfer system and represents the following:

1.

Applicant is the owner and operator of its M. Yates "B" (ARC) lease, consisting of 600 acres and being all of Section 33, Township 17-South, Range 28-East, N. M. P. M., Eddy County, New Mexico, except the NW $\frac{1}{4}$ NW $\frac{1}{4}$  thereof, which is productive of oil from the Empire Abo Pool. Applicant is presently drilling the second well on said lease and it is anticipated that there may ultimately be fifteen producing wells drilled thereon.

2.

Applicant proposes to install an automatic custody transfer system to handle the Empire Abo Pool production from all wells presently drilled or hereafter completed on said M. Yates "B" (ARC) lease. The applicant proposes to measure the oil passing through said automatic custody transfer equipment by means of either dump-type or positive displacement meters. Said meters will be checked for accuracy at reasonable intervals and the results of such tests furnished to the Commission as may be required by the Commission. All equipment used in the system shall be operated and maintained in such a manner as to insure an accurate measurement of the liquid hydrocarbon production at all times.

*Accepted  
11-28-60*

3.

Said lease consists of lands owned by the State of New Mexico and a copy hereof is being furnished to the Commissioner of Public Lands with the request that the Commissioner notify the applicant and the Commission of his approval or any objections hereto, prior to hearing on this application.

4.

Applicant represents that the automatic custody transfer equipment which it proposes to install is a reliable and economic means of transferring the custody of oil and that the use of such equipment is in the interest of prevention of waste and will not impair correlative rights.

WHEREFORE, applicant prays that this application be set for hearing before an Examiner at Santa Fe, New Mexico, that notice be given hereon and that upon such hearing permission be granted to applicant for the use of said automatic custody transfer system.

HORACE N. BURTON  
P. O. Box 1470  
Midland, Texas

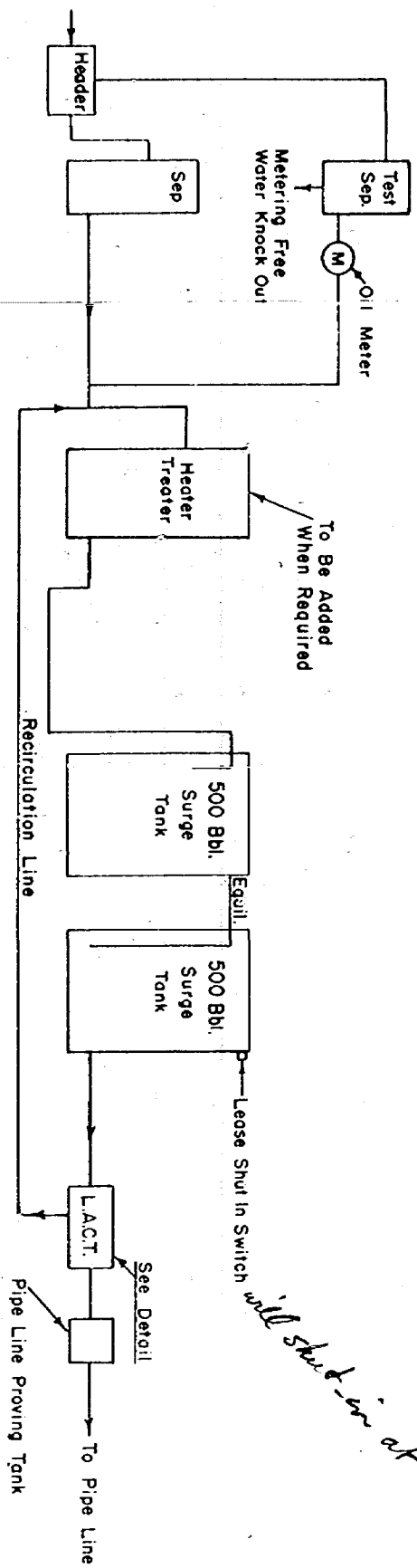
GILBERT, WHITE AND GILBERT

By *Levitt*  
Bishop Building  
Santa Fe, New Mexico

ATTORNEYS FOR APPLICANT  
SINCLAIR OIL & GAS COMPANY

- BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
5-11-60  
EXHIBIT NO. 1  
CASE NO. 195-9

SINCLAIR OIL & GAS COMPANY  
 DETAIL OF LEASE AUTOMATIC CUSTODY TRANSFER SYSTEM  
 M. YATES "B" (ARC) LEASE  
 EDDY COUNTY, NEW MEXICO



BEFORE EXAMINER NUTTER  
 OIL CONSERVATION COMMISSION  
 EXHIBIT NO. 2  
 CASE NO. 1959

flow lines: presently, installed conventional  
will install plastic lined 2" lbg.

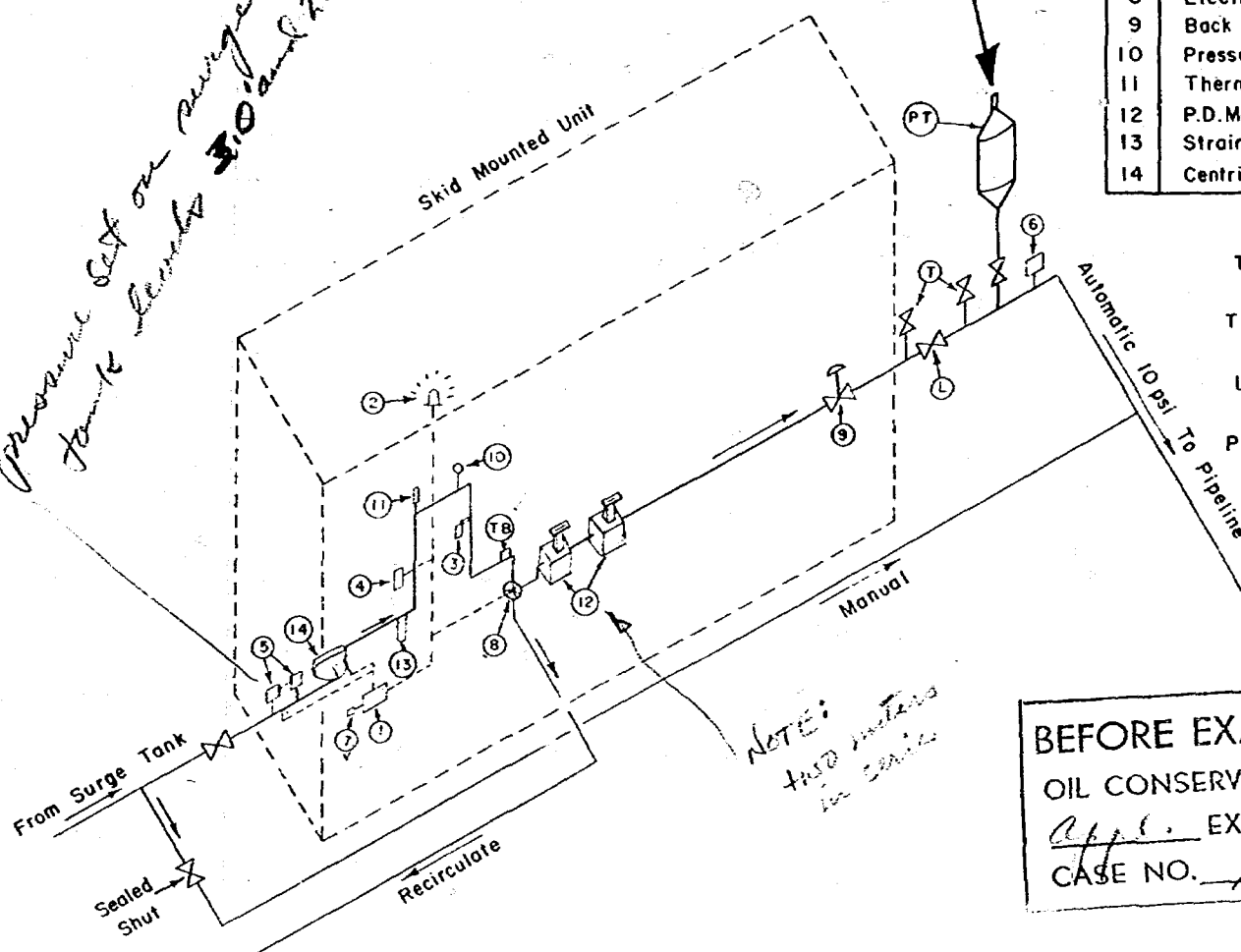
SINCLAIR OIL & GAS COMPANY  
DETAIL OF LEASE AUTOMATIC CUSTODY CONTROL UNIT

M. YATES "B" (ARC) LEASE  
EDDY COUNTY, NEW MEXICO

315  
60  
900 B/D

Pressure set on surge  
tank level 3.0 and 2.5

fabricated  
and  
installed  
by  
P.L.C.O.



LEGEND FOR SKID MOUNTED UNIT

ITEM	DESCRIPTION
1	Starter
2	Beacon Light
3	Sampler
4	Monitor B.S. & W.
5	Low Pressure "Stop" Switch ✓
6	High Pressure "Stop" Switch
7	Timer "Start" Switch
8	Electric Valve, 3 way, 2 position
9	Back Pressure Regulator (to maintain 10 psi)
10	Pressure Gauge
11	Thermometer
12	P.D. Meters (Temperature Compensated)
13	Strainer
14	Centrifugal Pump with Electric Motor

NOTES

- T - Connection For Meter Proving By Master Meter
- TB - Temperature Bulb For Meter Externally Mounted
- L - Plug Valve with Leak Test Drain-cock Assembly For Meter Proving
- PT - Pipe Line Proving Tank

BEFORE EXAMINER NUTTER  
OIL CONSERVATION COMMISSION  
App. EXHIBIT NO. 3  
CASE NO. 1859

BEFORE THE  
OIL CONSERVATION COMMISSION  
Santa Fe, New Mexico  
May 11, 1960

EXAMINER HEARING

IN THE MATTER OF:

Application of Sinclair Oil & Gas Company  
for approval of an automatic custody trans-  
fer system. Applicant, in the above-  
styled cause, seeks an order authorizing  
the installation of an automatic custody  
transfer system to handle the production  
from the Empire-Abo Pool from all wells  
presently completed or hereafter drilled  
on its M. Yates "B" Lease, consisting of  
the S/2, NE/4, S/2 NW/4, and NE/4 NW/4 of  
Section 33, Township 17 South, Range 28 East,  
Eddy County, New Mexico.

Case 1959

BEFORE: Daniel S. Nutter, Examiner.

TRANSCRIPT OF HEARING

MR. PAYNE: "Application of Sinclair Oil & Gas Company  
for approval of an automatic custody transfer system."

MR. WHITE: Charles White of Gilbert, White and Gilbert,  
Santa Fe, New Mexico, appearing on behalf of the Applicant, Sin-  
clair. We have one witness, Mr. Anderson.

(Witness sworn)

(Whereupon Sinclair's Exhi-  
bits Nos. 1 through 3 were  
marked for identification.)

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R. M. ANDERSON

called as a witness, having been first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. WHITE:

Q Will you state your full name, please?

A R. M. Anderson.

Q In what capacity are you employed by Sinclair Oil Company?

A I'm Senior Engineer at Sinclair's Midland Division Office.

Q Have you previously testified before this Commission?

A I have.

Q Have your qualifications been accepted?

A They have.

Q Is Sinclair the operator of its M. Yates (ARC) Lease?

A Yes, they are.

Q Will you refer to Exhibit No. 1 and explain that?

A Exhibit No. 1 is an area map showing the ownership and wells in the vicinity of the M. Yates "B" (ARC) Lease, which is the subject of this hearing. You will note that 600 acres in Section 3 is colored red, which is the Sinclair Lease. This Lease has two names, we have a vertical subdivision, the shallow zone, which is the Grayburg is called the Martin-Yates (ARC) Lease, and that contains six Artesia pool producers, and I have colored them in



green, circled them in green on Exhibit 1, and I have colored in green the tank battery that services the Artesia Pool wells.

The Empire-Abo Pool wells, which are the subject of this hearing, are circled in red, and the tank battery servicing them is colored red on this exhibit.

We have three wells, presently completed wells, 1-B, 2-B, 3-B and we have three or four additional wells drilling on this lease at this time. We will ultimately have 15 wells, we believe, on this lease in the Empire-Abo Pool that will produce into the tank battery that is colored in red on the exhibit. I've also shown the location of the pumper's house. It is due south, directly south of the tank battery that is the subject of this hearing.

Q Now, will you refer to Exhibit No. 2 and explain that schematic sketch?

A Exhibit No. 2 is a schematic sketch of the tank battery installation, and it shows the wells coming into a header and from the header going to a regular separator and also to a test separator. The test separator will be equipped with a metering free water knock out and, in order to permit the individual testing of the wells.

The main stream will flow through the regular separator and initially will flow into a 500 barrel surge tank. We anticipate that the lease will produce water in the near future, and when it

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does, we will install a heater treater as shown on this diagramatic sketch. The production will then go into a 500 barrel surge tank and will equalize when that tank is full, will equalize into a second 500 barrel surge tank from which we will withdraw the production through the LACT unit.

We have installed a lease automatic shutin switch. If the fluid level in the second surge tank ever reaches the level up near the top of that tank, the lease will be shut in automatically at the header.

Q Mr. Anderson, will you refer to Exhibit No. 3 and explain the LACT unit?

A Exhibit No. 3 is a detail of the LACT unit. This unit Sinclair designed and fabricated and is made up in our shops in Tulsa. It is a result of considerable experimentation and testing. It is a skid mounted unit which is shipped out completely assembled.

Before I explain the component parts of the unit, I would like to say how the unit operates, roughly. The unit is accuated by an electric clock, a timer switch, the same type of clock that is used on pumping units, timing pumping units and the type of equipment that has been proved in the field with many many years of experience. The clock has as many as ninety-six pins on it and the switcher would pull as many of those pins at whatever intervals he saw fit to start up this unit. For instance, if he wanted the unit to start up every three hours, he would pull eight pins, or

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if it were necessary for it to start up every six hours he would pull four pins. When the timer clock comes to a pin, the directing valve, which is in a closed position, is then turned to the recirculating position and the transfer pump, which is Item 14, starts up and for fifteen minutes circulates the oil from the surge tank through the components of this unit which is your BS and D monitor, your temperature, your pressure gauge, your sampler, which is inoperative during the recirculation circle and the temperature bulb which accuates your meters and the flow is not going through the meters at this time. It is circulating through all the component parts and back to the surge tank.

The purpose of that is to bring this system up to temperature to flush out any air or gas that might have accumulated in the lines during the shutdown period rather than produce them through the meters, it flushes them out if there has been a paraffin accumulation on the BS and W probe, it washes that off and at the end of fifteen minutes the directive valve, which is No. 8, will open to the deliver position and direct the production from the surge tank to the pipeline, provided the BS and W probe has not observed bad oil.

We are installing two meters in series side by side, one of them equipped with a ticket printer. The purpose of that is that in the event the temperature bulb on your meter would cease to function, ordinarily your meter would continue to register, although



incorrectly, or if any other mechanical failure happened in your meter and that failure would then be detected at the next time the system would be calibrated and there would be some question as to how far you should make this correction in order to determine the amount of oil that has passed. So, we feel in our Tulsa lab that we should, for a unit of this capacity, we should put two meters in and then in the event that we ever observe a difference in reading between the two meters, we immediately will recalibrate the system, determine which meter is right and sell oil on the basis of that meter, and, of course, repair the faulty meter.

The proving tank is not a Sinclair item, it is furnished and installed and calibrated by Service Pipeline Company who purchases crude on this lease. They will do all of the calibration that is necessary on this installation with a Sinclair observer assisting as possible. They will handle the calibrating at the intervals requested by the Commission and at the intervals more often if they see fit.

Q Will you explain how your beacon light functions?

A Yes, the beacon light, which is Item 2, which probably will be mounted on top of a light pole or the surge tank, and it is a rotating type beacon and any time that the directioning valve, Valve 8 is in the recirculate position, the beacon light is on.

Q That would be because of bad oil?

A Yes.

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Q Or while circulating for the fifteen minute interval?

A Yes, when the system starts up and goes through the fifteen minute recirculating period. The pumper is on the lease if he knows it is supposed to start on at nine o'clock. He can look over there and see if the beacon light is not on he knows that he has not had a power failure and it is ready to deliver oil to the pipeline.

Q Would your pumper be on the lease as much in the future as he has in the past?

A Yes, he will, and the shallower zone, we are not considering automation for that zone. It is a sour crude and does not lend itself to commingling with the sweet crude. We do not anticipate putting this custody transfer unit in with regard to the shallow wells and so the pumper who lives on the lease will continue to be on the lease. He will continue to operate the lease wells in the same manner that he is now. He will turn them on and turn them off and adjust the rates and test the wells periodically just like he is doing now, and the only difference in the operation other than instead of selling the oil through conventional gauging will be the fact that he will shut his well in at the header instead of shutting them in at the well head.

Before I go too much further on that I would like to go back and finish explaining Exhibit 3. I would just like to go through the flow diagram on this and mention exactly what components



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we have rather hurriedly. Item 5 are two pressure control Murphy switches and they are set, one of them is set for approximately three feet in surge tank at such a time that the fluid level in the surge tank is drawn down to about three feet, the first Murphy switch will shut down the LACT unit. That is our shut off and the timer switch is our starting device.

The other Murphy switch, which is installed side by side, is set for two feet and a half and in the event the first switch wouldn't operate, why we have a second switch that will do the same job at a six inch lower level in the surge tank.

The next item is 14, which is our pump. That pump operates both for recirculating and for delivery of oil to the pipeline. It operates for both features and Item 13 is a strainer, and Item 4 is our B.S. and W. monitor which is connected to the directing valve and to the beacon and turns the beacon on and turns the directing valve to a recirculating position when it senses bad oil.

Item 11 is a thermometer and Item 10 is a pressure gauge. Item 3 is a sampler which only takes a sampler when the directing valve is in the delivery position delivering oil through the meters. It does not sample when the valve is in the recirculating position. TB is the temperature bulb for the meters and it is mounted upstream of the directing valve so that during a recirculating period it is affected by the temperature of the crude.

Item 8 is the directing valve which is normally in a shut



position. It is a three position valve.

Q What if your electricity were to fail?

A If the electricity fails we have spring loaded solnoid operated switches on the header and wells on the lease are automatically shut in by a power failure.

Item 12 are the two meters. Item 9 is the back pressure regulator and Items T and L are connections for a master meter which we are not using. The pipeline company advises that they do not use master meters, they use prover tanks which they furnish.

Item PT is their prover tank which they installed alongside of our unit. Item 6 is a high pressure stock switch; in the event the pipeline pressure would get too high, the high pressure stop switch will shut down the LACT unit until the pressure is reduced for any reason.

Q Mr. Anderson, what type of flow lines do you have installed?

A We're, when this unit is installed, at present we are manually producing these wells and have conventional flow lines. When this unit is put into operation we will install tubing, two inch tubing, plastic lined two inch tubing and we intend to pressure test this tubing at one and a half times the maximum tubing pressure that we have observed of the wells in this field, which would be at about 1500 pounds.

Q In view of this high pressure line, and in view of the

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further fact that you have a pumper on the lease at all times, in your opinion is it necessary to have an automatic shutin valve at the well head?

A No, it is not. Another reason why I feel that way is we have installed chokes at the well head, which, in the event of an unlikely failure with this high pressure flow line, the flow from the well would be curtailed by the choke at the well head, Choke at the well head being just a little bit larger than the producing choke at the header. Therefore, we would maintain for paraffin reasons the high pressure in the flow lines during the flowing of the wells.

I do not believe in this installation that it would be necessary, I can not recommend to my people to put automatic shutin valves on the well head. They are very expensive, they are, of course, subject to mechanical failure, if they sit out there and are inoperative for a long period of time. There is that feature of them, and because of the high pressure tubing which there will be some J-55 and H-40 tubing installed possibly, I don't know which grades, if it's H-40 it will be in the neighborhood of some 5,000 pounds and if J-55 it will be 7500 pounds bursting pressure tubing which will give us more than an enough safety factor in my opinion to permit shutting in of the wells at the header without danger of breaking the flow line or causing waste through a flow line failure.

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Q Then you seriously urge the Commission to not require you to have a shutin valve under this installation?

A I certainly do. I don't see where it is any more necessary in this particular installation than in a normal installation that is delivering oil to the pipeline through conventional gauging methods. The lease will be attended to sufficient extent that the pumper will at all times be aware what's going on with his wells.

Q Mr. Anderson, were these exhibits prepared by you and under your direction?

A Yes, they were.

MR. WHITE: At this time we offer Exhibits 1 through 3.

MR. NUTTER: Sinclair's Exhibits 1 through 3 will be entered.

MR. WHITE: That concludes our direct examination.

MR. NUTTER: Does anyone have any questions of Mr. Anderson?

CROSS EXAMINATION

BY MR. PAYNE:

Q Mr. Anderson, as I understand it, you have a lease shutin switch which will shut the wells in at the header?

A Yes, sir.

Q So in view of that, additional storage capacity is not necessary, is that right?





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A No, sir.

Q And you do propose to use high pressure corrosion-resistant flow lines?

A Yes, sir.

Q Which will withstand the pressure of 1500 pounds?

A We will test them at 1500 pounds in event we do not have to put the automatic flow line valve in. In lieu of that we will test the lines after they are installed on the ground for one and a half times the highest pressure we expect the flow lines to have.

Q These are all flowing wells, aren't they?

A Yes, sir.

MR. PAYNE: Thank you.

BY MR. NUTTER:

Q The first surge tank would remain full at all times?

A That is the requirement of the Service Pipeline Company. They felt that would provide additional settling of the crude before it's finally delivered through the LACT unit, so it would remain full at all times.

Q Now, the fluid level in the second tank is governed by the timing cycle only, is that correct?

A That is correct.

Q With the safety feature of the two Murphy low pressure switches at the two and a half foot and three foot levels?

A Those are the shut down switches that shut the LACT



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unit down.

Q In the event the timing cycle took too much out of the tank and it got to the too full level, it would be shut in then?

A No, the LACT unit, once it starts, will deliver oil until the Murphy switches shut it off; until it pulls the oil level down to about three feet it will continue to take oil.

Q The timing cycle never shuts the flow of oil off then?

A No.

Q It merely starts it?

A It only starts it.

Q When you are in recirculating position that means that the oil is being drawn from the second surge tank through the first part of the LACT and circulated back through the heater treater if there is one, and if not, simply back into the first surge tank, is that correct?

A Yes.

MR. NUTTER: Any further questions of Mr. Anderson?  
He may be excused.

(Witness excused.)

MR. NUTTER: Did you have anything further, Mr. White?

MR. WHITE: That's all.

MR. NUTTER: Does anyone have anything further for Case 1959? We will take the case under advisement and take Case 1960.



STATE OF NEW MEXICO )  
 : SS  
 COUNTY OF BERNALILLO )

I, ADA DEARNLEY, Court Reporter, do hereby certify that the foregoing and attached transcript of proceedings before the New Mexico Oil Conservation Commission at Santa Fe, New Mexico, is a true and correct record to the best of my knowledge, skill and ability.

IN WITNESS WHEREOF I have affixed my hand and notarial seal this 20<sup>th</sup> day of May, 1960.

*Ada Dearnley*  
 Notary Public-Court Reporter

My commission expires:

June 19, 1963.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 1959 heard by me on 5/11, 1960.

*[Signature]*, Examiner  
 New Mexico Oil Conservation Commission

DEARNLEY-MEIER REPORTING SERVICE, Inc.

ALBUQUERQUE, NEW MEXICO

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